

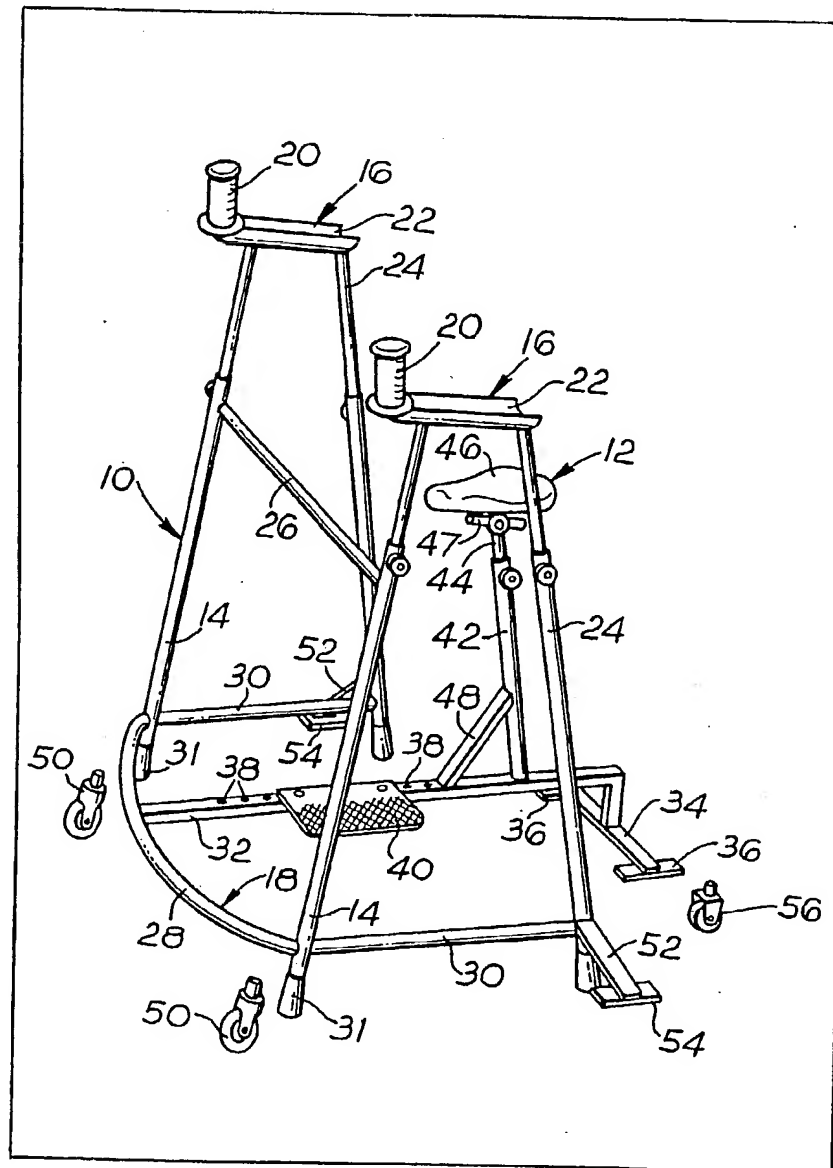
(12) UK Patent Application (19) GB (11) 2 127 705 A

- (21) Application No 8325841
- (22) Date of filing 27 Sep 1983
- (30) Priority data
- (31) 8228177
- (32) 1 Oct 1982
- (33) United Kingdom (GB)
- (43) Application published 18 Apr 1984
- (51) INT CL³
A61H 3/00
- (52) Domestic classification
A6M 21E
- (56) Documents cited
GB 1483663
GB 0919056
GB 0857763
GB 0757340
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GB 0459091
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US 3488088
- (58) Field of search
A6M
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(54) Invalid's walking frame

(57) To enable an invalid, having active use of one leg only (or in certain instances defective use of both legs) to walk slowly, the walking frame, comprising main uprights 14 and converging secondary uprights 24 surmounted by handle units 16 including handles 20, includes a

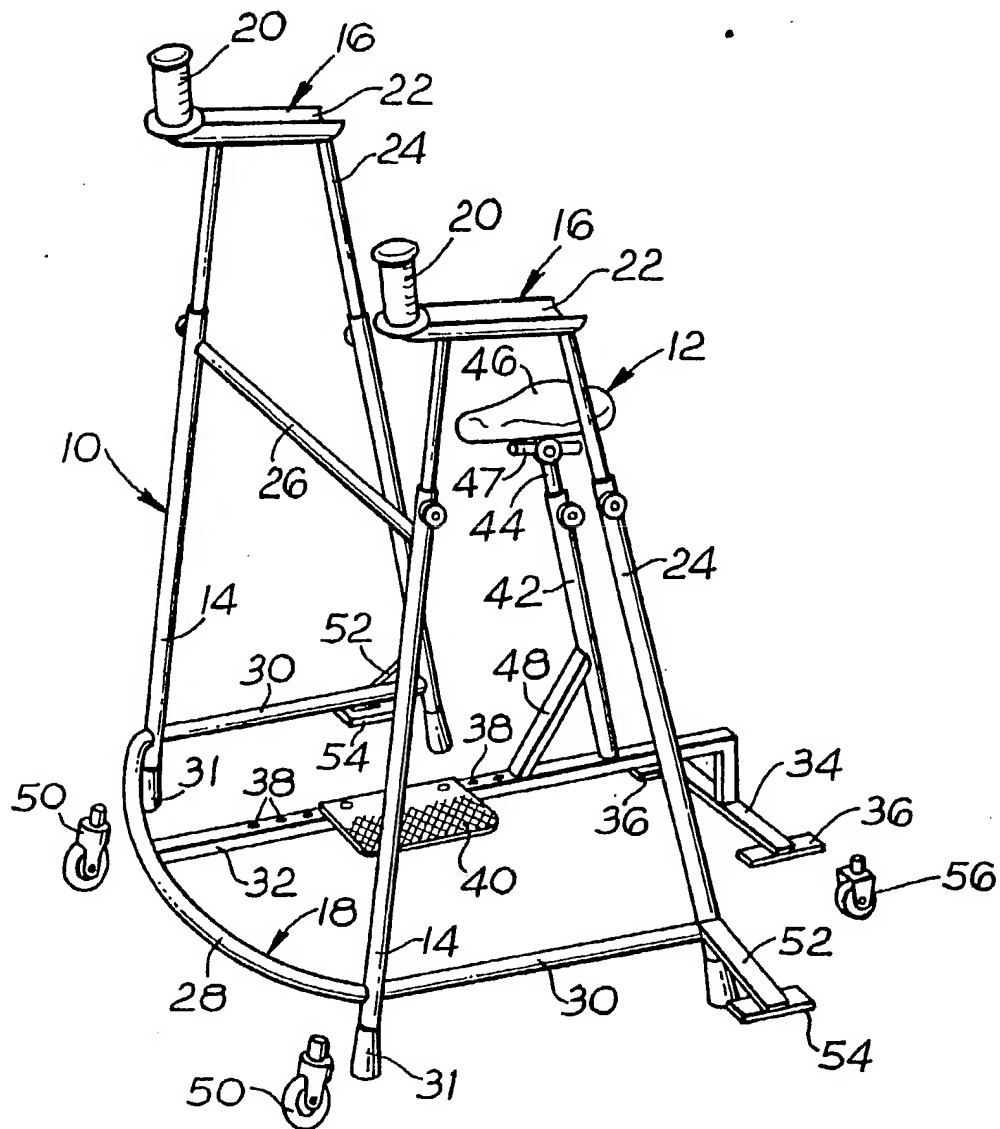
central beam 32 extending rearwardly and carrying a footrest 40 which can be adjusted front-to-rear and to project to one side or the other. This beam 32 couples to the walking frame a rest unit comprising a saddle 46 adjustable for height, upon which the user can sit or support at least part of his weight whilst moving his leg(s) between successive forward movements of the entire frame.



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The drawing originally filed was informal and the print here reproduced is taken from a later filed formal copy.

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SPECIFICATION Invalid's walking frame

This invention concerns an invalid's walking frame.

- 5 As is well known, invalid's walking frames normally comprise a support structure which is either portable (in that it can readily be lifted and moved to a new position) or movable (e.g. on wheels) and when set down is stable this,
- 10 structure including handle means (such as individual handles or a handle bar) which can be gripped by the user so that the user can steady or support himself whilst effecting leg movements, alternate movement of the support structure and
- 15 of the user's legs enabling the user to walk. A disadvantage of walking frames as hitherto known lies in the fact that, in general, they are of very little use to a patient or invalid who has only one functional leg. Usually they are of utility for
- 20 persons able to use both legs, being used principally by weak and/or geriatric patients; such patients would not normally be able to move about, even with the use of a frame, if they have only one usable or functioning leg.
- 25 An object of the present invention is to provide a construction of walking frame which is improved in comparison with the known constructions in that it enables an invalid or patient who would be usable to move about using a known walking
- 30 frame (e.g. by reason of having only one functional leg or able only to move both legs simultaneously) to move about. With this object in view, the present invention provides an invalid's walking frame comprising a
- 35 portable or movable support structure for resting upon the ground and including handle means whereby a user may steady or support himself whilst effecting leg movement, characterised in that the frame further includes a rest so disposed
- 40 as to be behind the user of the frame so that the user may support at least part of his weight, during leg movement, by sitting on the rest. The portable or movable support structure may comprise skids which rest upon the ground, and
- 45 feet so disposed, relative to the skids, that they may be lifted out of contact with the ground for enabling the frame to be progressed over the ground. In a preferred embodiment of the walking frame
- 50 of the invention, the portable or movable support structure comprises a handle unit including a pair of upwardly-directed main uprights with respective handles at their upper ends, this unit including, at the lower ends of the uprights, a
- 55 generally U-shaped foot unit which, in use, has its limbs substantially horizontally directed rearwardly from the main uprights to join with secondary uprights the lower ends of which provide further feet of the support structure and
- 60 the upper ends of which connect with the handle means. The rest conveniently comprises a post extending upwardly from a cross-bar connected to a beam extending rearwardly from the foot unit,

- 65 the cross bar having the skids on its ends.

The rest preferably includes a seat or saddle, the height of which can be adjusted.

- The invention will be described further, by way of example, with reference to the accompanying
- 70 drawing in which the single figure is a diagrammatic perspective view illustrating a preferred embodiment of the invalid's walking frame of the invention.

- The illustrated practical embodiment of the
- 75 invalid's walking frame of the invention comprises a movable support structure, indicated generally by the reference numeral 10 including a rest arrangement which is indicated generally by the reference numeral 12.

- 80 The movable support structure 10 comprises a generally U-shaped handle unit made of light metal tubing and including a pair of upwardly-directed main uprights 14 with respective handle units 16 at their upper ends and joined at their
- 85 lower ends by a generally U-shaped foot unit 18. The handle units 16 are adjustable for height by reason of the uprights 14 being telescopic and each comprise a respective upstanding handgrip 20 provided at the front of a respective trough-like
- 90 forearm rest 22 fixed to the top ends of the respective main uprights 14 and corresponding secondary uprights 24 which converge slightly towards the main uprights 14 and are correspondingly telescopic. A substantially
- 95 horizontal upper strut 26 connects the main uprights 14.

- The foot unit, indicated generally by the reference numeral 18 is U-shaped in plan. The curved part 28 of this foot unit 18 connects the
- 100 main uprights 14 near to the lower ends thereof, and limbs 30 thereof are substantially horizontally directed and connect the corresponding main and secondary uprights 14, 24. Ferrules 31 are provided on the lower ends of the uprights 14, 24.
- 105 Extending rearwardly from the middle of the curved part 28 of the foot unit 18 is a beam 32 the rear end of which is turned down and connected to a cross bar 34 on the lateral ends of which are respective shoes 36 which rest upon
- 110 the ground. The beam 32 has a number of bores 38 enabling a foot rest 40 to be secured thereto at any of a number of alternative front-to-rear adjusted positions and so as to project alternatively either to one side or to the other of the beam 32.

- Upstanding from the middle of the cross bar 34 is a seat column 42 of the rest 12, this seat column 42 telescopically accommodating a
- 120 vertically-adjustable seat pillar 44 carrying a saddle or seat 46 which can be adjusted backwards and forwards on a support piece 47. An angled strut 48 serves to reinforce the column 42.

- The combination of the handle unit 10 and the
- 125 foot unit 18 constitute almost the equivalent of a conventional walking frame which can be used by an invalid person to assist walking by lifting the entire frame and then moving the frame forward by a short distance whereafter the user can

support himself by the frame whilst he moves forward.

As already mentioned, however, the walking frame of the invention, in addition to having the support structure provided by the handle unit 10 and the foot unit 18, includes the rest arrangement 12. This latter arrangement enables the walking frame to be used by invalid persons who have the use of only one leg or whose leg movements are restricted, in some way that they cannot take steps as is necessary with a conventional walking frame. The frame itself is moved forward as required in the manner already described by manipulation using the handles 20 if appropriate with the user resting his forearms on the rests 22. Upon the frame being set down on the floor again, the user can transfer the majority of his weight to the walking frame, by the simple action of sitting down on the seat 46. This having been done, he can now move his good leg forward as necessary ready for his next movement which involves taking some of his weight upon that leg or legs, the other non-usable leg being supported on the footrest 40, and then again moving the frame forward as already described. By repetitively performing these actions, the user can effectively move along, albeit at a relatively slow speed, with a walking action, and experience shows that the frame can be employed by persons having only one leg, or able to move only one leg, or who have two legs but can move them only simultaneously (e.g. by swinging) relative to their bodies, in which latter instance the footrest 40 will be, normally, be removed.

The invention is not confined to the precise details of the illustrated example, and variations may be made thereto. Thus, the support structure of the walking frame in the described case is constructed so that it has to be lifted for each forward movement; instead the arrangement may be such that it can be progressed by being tilted. Also wheels and/or castors, as indicated at 50, may be provided in the place of the ferrules 31, particularly those on the uprights 14, and/or in the place of the skids. Also, in the illustrated case the secondary uprights 24 have been shown as having lateral stabilising struts 52 and shoes 54, but these are not essential in every case. The illustrated frame has handle means 16 in the form of the handles 20 and rests 22 but of course it is not essential that the frame should have individual handles, and a cross-bar similar to a cross-bar of a conventional walking frame can be provided. So far as the support structure 10 and the rest 12 are concerned, it is not essential to the invention that these should be of the form illustrated or that a seat or saddle 46, adjustable in height, should be

provided. The rest should comprise a constructional component, e.g. of metal,

appropriately shaped or constructed so as to be comfortable for being directly sat upon. If desired, stabilising castors 56 (or their equivalent), may be provided in the place of the skids 36. They will then not need to be lifted off the floor upon forward movement of the walking frame but care must be taken to ensure that the frame does not move too far forward. Other variations are possible.

CLAIMS

1. An invalid's walking frame comprising a portable or movable support structure for resting upon the ground and including handle means whereby a user may steady or support himself whilst effecting leg movement, characterised in that the frame further includes a rest disposed so as to be behind the user of the frame so that the user may support at least part of his weight, during leg movement, by sitting on the rest.
2. A walking frame as claimed in claim 1 wherein the portable or movable support structure comprises skids which rest upon the ground, and feet so disposed, relative to the skids, that they may be lifted out of contact with the ground for enabling the frame to be progressed over the ground.
3. A walking frame as claimed in claim 1 or 2 wherein the portable or movable support structure comprises a handle unit a pair of upwardly-directed main uprights with respective handles at their upper ends, this unit including at the lower ends of the uprights, a generally U-shaped foot unit which, in use, has its limbs substantially horizontally directed rearwardly from the main uprights to join with secondary uprights the lower ends of which provide further feet of the support structure and the upper ends of which connect with the handle means.
4. A walking frame as claimed in claim 1, 2 or 3 wherein the handle means include channel form rests for accommodating the user's forearms when gripping the handles.
5. A walking frame as claimed in claim 3 or 4 wherein the rest comprises a post extending upwardly from a cross-bar connected to a beam extending rearwardly from the foot unit, the cross-bar having skids on its ends.
6. A walking frame as claimed in any preceding claim wherein the rest includes a seat or saddle the height of which can be adjusted.
7. An invalid's walking frame substantially as hereinbefore described with reference to and as illustrated in the accompanying drawing.